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THE BOARD OF HEALTH BUILDING

TWENTY-FIFTH ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE CITY OF DETROIT

FOR THE FISCAL YEAR
ENDING JUNE 30, 1906

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REPORT OF HEALTH OFFICER.

Detroit, Mich., July 1, 1906.

To the Honorable the Board of Health:

GENTLEMEN—Following is the report of the Health Officer for the fiscal year ending June 30, 1906:

Personal Investigation of Cases.

During the year I have investigated, for the purpose of diagnosis, two hundred and eighteen cases that were reported to this department as suspicious of smallpox or some other contagious disease. The persons examined were found to be suffering from various diseases, as follows: Smallpox, 20; chicken-pox, 22; scarlet fever, 73; diphtheria, 13; tonsilitis, 17; syphilis, 9; measles, 17; other diseases, 47; under the head of "other diseases" are included such ailments as urticaria, scabies, impetigo, acne, eczema and several others.

Vaccination.

Free vaccination has been offered at the Board of Health building during the year as heretofore. One of the staff physicians is on duty from ten to twelve o'clock daily, except Sundays, for this purpose. Inasmuch as there were few cases of smallpox during the year, and nearly all of them were from out of the city, there were no large exposures and consequently we had but little "wholesale" vaccinating to do in factories and workshops.

Smallpox.

The number of cases of smallpox compared with the number for the previous year is again reduced by 50 per cent. There were

during the entire year only twenty cases of smallpox in Detroit. The city was entirely free from this disease from June 24, 1905, until January 29, 1906, when a young man came here from Harrisville, Mich., at which place he had contracted smallpox. Fortunately he was discovered very soon after he arrived in the city and before he had had time to infect many people. There were no additional cases traceable to him, and we were again without a single case until March 7th when another young man was reported as having smallpox. The origin of this second case we were unable to trace, but we subsequently had two cases traceable to this one. Of the remaining sixteen cases eleven were contracted outside of the city and in five the source of the infection remained unknown. Smallpox was prevalent during the year throughout Michigan and the neighboring states and particularly in Canada, and located as we are, a city of nearly 400,000 inhabitants, we consider Detroit fortunate in having had within her city limits during the entire year only twenty cases of smallpox.

Scarlet Fever.

Scarlet fever was unusually prevalent all over the country this year. In looking over the Board of Health reports received from various cities, I find that they all report a large number of cases of scarlet fever. Detroit is no exception to this rule. There was an increase in the number of cases of this disease over the number reported the year previous and yet, when we stop to consider the growth of the city, the increase is not large. This year there were reported 487 cases of scarlet fever as compared with 384 for the year 1904-1905. Not only was the disease more prevalent but it seems to have been more virulent and fatal as well. Last year there were only 22 deaths or a mortality of less than 6 per cent., whereas the year ending now shows a total of 55 deaths, giving us a mortality percentage of about eleven.

The unusual prevalence of scarlet fever has been accounted for in various ways, some sanitarians believing that the meteorological

conditions which existed during the past winter had a great influence in spreading the disease. We have certainly been more rigid than ever before in our endeavors to restrict the disease and in spite of our efforts, more cases were reported which would indicate that the increase was due to some general condition over which we had no control.

Diphtheria.

It is my pleasure to again report a decrease in the number of cases of diphtheria, a reduction from 893 cases reported last year to 804 this year. In looking up the mortality for the two years I am not able to make so favorable a report, the mortality this year exceeding that of the previous year. During the period 1904-1905 there were, out of 893 cases only 83 deaths or a little more than 9 per cent., whereas for the past year we find a record of 804 cases with 97 deaths, a mortality rate of about 12 per cent. This would indicate that, though the disease was not as prevalent as during the year previous, it was, like scarlet fever, more virulent and fatal.

The medical inspectors in all of the schools have been on the lookout for cases of diphtheria as well as cases of scarlet fever and a number of children suspicious of having one of these diseases have been excluded from school during the year. There is no doubt but that without this system of inspection the number of cases of both diphtheria and scarlet fever would have been much larger than they were.

Agreeable to the opinion expressed by various members of your Honorable Board at different times, I have been liberal in the distribution of antitoxin not only for preventive but even for curative purposes. I am firmly of the opinion that if we can induce physicians to use antitoxin oftener and in larger doses, we will succeed in still further restricting diphtheria and in reducihg its mortality.

Tuberculosis.

Consumption is still the "Captain of the Men of Death" according to our mortuary statistics, with pneumonia following as a close second. Cases of tuberculosis are not reported to this office and, as I said a year ago, they will not be reported until the disease is specifically mentioned in the State law as a "notifiable disease." In the meantime we are doing all we can by a "campaign of education" to get the people ready for a number of reforms in the manner of handling cases of tuberculosis.

We are now, as you know, disinfecting houses in which consumptives have died, wherever a death is reported. We hope, in the near future, to get track of cases to such an extent at least that we will know whenever a consumptive moves from one dwelling to another so that we can then disinfect the house from which he has moved.

During the year a "Tuberculosis Clinic" has been established in the Board of Health building. The prime object of this undertaking is to prevent the disease, it being our intention whenever cases apply to the clinic to have them visited at their homes where instructions can then be given with regard to the prevention of the disease in that particular family. Dr. V. C. Vaughan, Jr., has charge of the clinic and may be found in attendance daily, except Sundays, from 5 to 6 o'clock in the afternoon. The homes of the patients are visited by nurses from the Visiting Nurses' Association, which institution has kindly given us its hearty co-operation in this new step in the restriction of consumption. For the instruction of people living in houses with consumptives we have a folder with instructions of which the following is a copy:

HOW TO PREVENT CONSUMPTION.

The spit and the small particles coughed up and sneezed out by consumptives, and by many who do not know that they have consumption, are full of living germs too small to be seen. THESE GERMS ARE THE CAUSE OF CONSUMPTION.

DON'T SPIT on sidewalks—it spreads disease, and it is against the law.

DON'T SPIT on the floors of your rooms or hallways.

DON'T SPIT on the floor of your shop.

WHEN YOU SPIT, spit in the gutters or into a spittoon. Have your own spittoons half full of water, and clean them out at least once a day with hot water.

DON'T cough without holding a handkerchief or your hand over your mouth.

DON'T live in rooms where there is no fresh air.

DON'T work in rooms where there is no fresh air.

DON'T sleep in rooms where there is no fresh air.

Keep at least one window open in your bedroom day and night.

Fresh air helps to kill the consumption germ.

Fresh air helps to keep you strong and healthy.

DON'T eat with soiled hands—wash them first.

DON'T NEGLECT A COLD or a cough.

HOW TO CURE CONSUMPTION.

DON'T WASTE YOUR MONEY on patent medicines or advertised cures for consumption, but go to a doctor or a dispensary. If you go in time YOU CAN BE CURED; if you wait until you are so sick that you cannot work any longer, or until you are very weak, it may be too late; at any rate it will in the end mean more time out of work and more wages lost than if you had taken care of yourself at the start.

DON'T DRINK WHISKEY, beer, or other intoxicating drinks; they will do you no good, but will make it harder for you to get well.

DON'T SLEEP IN THE SAME BED with anyone else, and, if possible, not in the same room.

GOOD FOOD, FRESH AIR, AND REST are the best cures. Keep in the sunshine as much as possible, and KEEP YOUR WINDOWS OPEN, winter and summer, night and day—fresh air, night and day, is good for you.

THE CAREFUL AND CLEAN CONSUMPTIVE IS NOT DANGEROUS TO THOSE WITH WHOM HE LIVES AND WORKS.

If you are in need of advice in regard to any of the directions given in this pamphlet, write to or call at the office of the

DETROIT BOARD OF HEALTH
Department for the Prevention of Tuberculosis.
233 St. Antoine St., Detroit
Telephone Main 2791.

Besides these folders we put into the hands of each family that we reach in this way a copy of the pamphlet issued by the Michigan State Board of Health on "Tuberculosis, Its Restriction and Prevention."

We hope to have in Detroit within a month or six weeks, the Tuberculosis Exhibition of the National Association for the Study and Prevention of Tuberculosis. This exhibit has been in Chicago, Milwaukee, Grand Rapids, and in several Eastern cities and is reported as being a great success in arousing interest in this important problem, the Prevention and Cure of Consumption.

Pneumonia.

Pneumonia is the second greatest cause of death in Detroit and we must make an endeavor to have steps taken for its restriction and prevention. When the legislature meets this winter an attempt will be made to have pneumonia and tuberculosis included in the law which requires physicians to report certain diseases to the Board of Health. The law now requires "smallpox, scarlet fever, diph-

theria and any other disease that is communicable and dangerous to the public health" to be reported, but if tuberculosis and pneumonia were specifically mentioned, I believe we would have little difficulty in getting reports. With our cases of pneumonia reported, we could then begin to enforce regulations to prevent the spread of the disease.

Typhoid Fever.

The reporting of cases of typhoid is not general. A few physicians are complying with the resolution of your Honorable Board, requiring the reporting of cases of typhoid, but this practice will not become universal until this disease too, is specifically mentioned in the State law. During the year eighty-seven cases were reported to this office but as we have, during the same period, recorded seventy deaths from typhoid it will be readily seen that only a small proportion of the cases are reported. Judging by the number of deaths the disease was more prevalent than in the four years previous, in which the number of deaths ranged from forty-five to sixty-four. It is probable, however, that this disease, like the others herein described, was also more virulent than in previous years and if that be true, the total number of cases was likely about the same as it has been for the past several years. At any rate seventy deaths in a city of nearly 400,000 inhabitants would not throw suspicion on the water supply and we are therefore led to the conclusion that a large proportion of our cases are brought in from outside of the city by persons returning from summer outings at country places where they had partaken of unsafe or contaminated water and that the means of spreading the disease in our midst is by personal contact and undoubtedly, to a great extent, by flies.

Whenever we are notified of a case we furnish the householders with printed instructions in regard to the prevention of the disease, telling them particularly how to disinfect all dejecta and also call-

ing attention to the fact that the sick room must be especially protected against flies.

Examination of Air in Buildings and in Street Cars.

During the year the work of examining the air in schools and other public buildings has been continued and the question of ventilation of street cars has been taken up. A number of tests of the air in our cars during the winter months have been made and it was found that when the cars are crowded and all the windows closed, the air becomes quite foul, the tests showing a carbon dioxide content of 20 parts in 10,000 of air. As a consequence of our work the Common Council has passed an ordinance requiring the street railway company to equip all of its cars with ventilators in the future, the ordinance to go into effect in November, 1906.

Medical Inspection of Schools.

The work accomplished by the Medical School Inspectors during the year has been very satisfactory. A number of cases of scarlet fever and diphtheria were found in the various schools and excluded, and many cases of other communicable diseases. In the registrar's report may be found a tabulated report of the number of pupils examined during the year, together with the number excluded and the causes of exclusion. We have done some inspecting in the parochial schools but the work there has never been systematically carried out. With such good results obtained in the public schools it seemed to me advisable to extend the work and, therefore, this spring your Honorable Board asked for an increased appropriation from the Board of Estimates and the Common Council for this work. It seemed to me that in extending the system of school examinations, a great improvement would be made if the number of schools allotted to each doctor were reduced. Accordingly it was decided to require each inspector to take charge of four schools instead of seven as heretofore and to include the

parochial schools, making a total of 109 schools to be looked after this year in place of 70—and as this would require, at the same salary as was previously paid to the doctors, viz., $250—per year, $6,750—this amount was asked for by your Honorable Board and subsequently allowed by the Common Council and Board of Estimates. With this increased force of assistants at our command we hope during the coming year to still further restrict the spread of communicable diseases among school children.

The work of examining the sight and hearing of the children has been confined, as far as any systematic inspection is concerned, to the high school pupils. Dr. W. R. Parker, assisted by myself, has during the year examined all of the high school pupils whose eyes or ears had been found to be "substandard" or below the normal by a previous examination conducted by the teachers. Dr. Parker found that about one-third of all pupils examined had defective eye-sight or hearing and as many of these have since had the defects corrected, much good has been accomplished by this part of the system of medical school inspection.

Milk Inspection.

The report of the Milk Inspectors gives a detailed account and tabulated statement of the work done in this department. Especial attention has been paid to the condition of the dairies and milk depots and to the temperature at which the milk is kept. In gathering samples of milk many have been taken at the stations just after their arrival in the city and before delivery to the local dealer. When they have been found in bad condition, the State food and dairy department have been notified so that they would look after those dairies outside of the city limits.

Inasmuch as an unusually high infant mortality may be attributed to some extent to the milk supply, I have gathered some statistics to determine the infant mortality rate of Detroit as compared with other cities. I find that in the death rate of children under one year, our city compares favorably with a number of

others and in the death rate of children under two years our figures are the third lowest of nine cities. Following is a table showing the comparative percentage mortality:

	Under One Year (% of total deaths)	Under Two Years (% of total deaths)
Milwaukee	28.9%	33.3%
Pittsburg	26.4%	32.9%
New York	24.5%	30.9%
Chicago	23.4%	29.5%
Philadelphia	22.1%	26.6%
Buffalo	21.8%	26.9%
DETROIT	22.9%	26.1%
Washington	20.5%	24.7%
St. Louis	16.7%	20.008%

Collection of Garbage.

During the year the question of a change in the system of collecting and disposing of garbage in Detroit has been under consideration and after many conferences and much discussion the Common Council decided to accept the proposition submitted by the Detroit Reduction Co. This proposition provides that the garbage is to be delivered at certain depots to the aforesaid company and they will receive it at such depots and carry it to their reduction works free of charge to the city. The collection will of course have to be provided for separately and it has been decided to have all collections of garbage made by the city, the work to be done under the supervision of the Department of Public Works.

Smoke Inspection.

A detailed account of the work done during the year in this department will be found in the report of the Smoke Inspector, hereto appended.

In June a Smoke Inspectors' Convention was held in Detroit, the first convention of the kind ever held. It was quite largely attended, there being delegates from a great many of the larger

cities in the country. The object of the meeting was to exchange ideas as to the best methods of smoke prevention and to formulate plans for the enforcement of "smoke nuisance laws" in the various cities. A permanent organization to be known as "The International Association for the Prevention of Smoke" was formed and the smoke inspector of the Detroit Board of Health, Mr. John Fairgrieve, was chosen its first president.

Regulations Governing Houses of Prostitution.

Detroit is continuing the system established by the Board of Health several years ago of requiring prostitutes to furnish, once in two weeks, a physician's certificate showing them to be free from venereal disease. These certificates are collected by police officers detailed for the work. Whenever a prostitute is found ill with a communicable disease she is removed to an hospital and kept under treatment until she is no longer able to transmit the disease.

Public Baths and Public Lavatories.

For five years the health officer has been recommending and urging the establishment of at least one public bath and one public "comfort station" in Detroit. The lack of these very necessary institutions has been the cause of the worst kind of nuisances in our beautiful city.

Last year an appropriation of $10,000 was allowed for the purpose of installing an underground lavatory on Cadillac Square and it is now in the process of construction. This spring the Common Council and Board of Estimates allowed the money asked for the erection of a public bath in Detroit. I am satisfied that after both the lavatory and the bath have been in use for a short time, the demand for additional ones to be placed at various locations throughout the city, will be great.

Hospital for Communicable Diseases.

There has been no progress made in the building of the proposed new hospital. Soon after the money for this purpose had been allowed, a site was purchased on Brush Street, Willis and Alexandrine Avenues. People living in the immediate neighborhood have succeeded in obtaining a temporary injunction restraining the Board of Health from building on that site and up to the present time no steps have been taken in court to have the injunction dissolved. The matter is in the hands of Mr. Doremus, of the Corporation Counsel's office, and he assures us that it will be brought up at the earliest possible time.

State Fair Exhibit.

At the State Fair which was held in Detroit in September, the Board of Health was represented by a very instructive exhibit under the personal supervision of Dr. Hayward. Various methods of examining milk, both chemically and bacteriologically, were demonstrated and there was a carefully prepared exhibition of pathological conditions found in meats. The exhibit was favorably commented on by nearly all who visited it.

Health Board Records and Reports.

The public records of the Board of Health are of importance and are kept as carefully and accurately as possible. During the year our new vault for the filing of records was built and we now have an abundance of room for that purpose.

The reports of births received were formerly incomplete but on January 10th, of this year, the new law regulating the Registration of Births went into effect and since then the number of birth reports received has increased very considerably.

The Employes.

All of the employes of the board have done good, conscientious work. In April the newly annexed territory, now known as the Eighteenth Ward, became part of the city and as a consequence work was increased in all departments. The various inspectors felt the sudden addition of a large territory with approximately 20,000 inhabitants, as did also the office force, but no complaint was heard and "our boys" are continuing their extra work with their usual willingness and application to duty. No additional hands have been employed on account of the new ward.

The medical inspectors of schools have done a vast amount of valuable work for nominal pay. By their care and watchfulness the number of cases of communicable diseases has been kept within reasonable limits.

The Board.

In closing my annual report I desire to again express to your Honorable Board my appreciation of the consideration and support that you have given me at all times. I am satisfied that without such hearty and consistent co-operation it would not have been possible to have obtained such satisfactory results in my work.

Respectfully submitted,

GUY L. KIEFER,
Health Officer.

REPORT OF SECRETARY.

July 1, 1906.

The Honorable the Board of Health:

GENTLEMEN—The following is respectfully submitted as the report of the Secretary for the fiscal year ending June 30, 1906.

Receipts and Expenditures.

	Fund	Expended	Balance	Overdraft
Antitoxin	$1,200 00	$1,062 76	$ 137 24	.....
Advertising	75 00	62 32	12 68	.....
Care of poor patients	2,800 00	3,244 62	.....	$ 444 62
Disinfectants	800 00	456 76	343 24	.....
Fuel	900 00	814 73	85 27	.....
Groceries	3,000 00	2,621 83	378 17	.....
General Expense	400 00	603 90	.....	203 90
Hospital repairs	100 00	548 80	.....	448 80
Hospital supplies	150 00	138 58	11 42	.....
Transportation of smallpox patients	100 00	45 00	55 00	.....
Laboratory supplies	200 00	185 13	14 87	.....
Messenger service	400 00	374 75	25 25	.....
Postage	125 00	155 00	.....	30 00
Printing and stationery	700 00	795 11	.....	95 11
Transportation, Inspectors	1,000 00	1,000 00	.....	.....
Vaccine matter	200 00	147 46	52 54	.....
Labor, smallpox hospital	900 00	567 52	332 48	.....
Labor, quarantine guards	500 00	19 25	480 75	.....
Medical Inspectors of Schools	2,500 00	2,500 00	.....	.....
Fixed salaries	23,448 00	23,448 00	.....	.....
	$39,498 00	$38,791 52	$1,928 91	$1,222 43

The funds as above stated are the amounts allowed by the Board of Estimates for the fiscal year ending June 30, 1906, and the expenditures are for the same period.

The Care of Poor Patients' fund, $2,800.00, shows an overdraft of $444.62, but this was provided for by a resolution of the Common Council permitting the transfer of $450.00 from the Quarantine Guard fund and $50.00 from the Labor at Smallpox Hospital fund, to that fund, so that the overdraft was in that way taken care of and a balance remained in the fund at the end of the year amounting to $55.38.

The General Expense fund shows an overdraft of $203.90. This was chiefly caused by charging to that fund $128.80 for linoleum, necessarily placed in a number of rooms in the Board of Health building, and $60.00 paid in exchange for a new typewriter, and was provided for by a resolution of the Common Council authorizing the City Controller to transfer $210.00 from the balance remaining in the Public Health fund from last year to the General Expense fund.

A later resolution of the Common Council authorized the transfer of $40.00 from Labor at Smallpox Hospital fund to this fund, so that at the close of the year there remained in that fund a balance of $6.10.

The Hospital Repair fund, $100.00, was overdrawn by $448.80. It was found that one of the smoke stacks in the hospital was out of repair because rust had eaten large holes in it, rendering it unfit for further use, and necessitating immediate attention. At the same time it was learned that the heater for the hot water tank which supplies the bath rooms, was cracked and broken beyond repair, and that several other small repairs were necessary in order to place the hospital in a proper condition for use.

A communication was therefore presented to the Common Council stating these facts with a request that the Council authorize the transfer of $450.00 from the balance remaining in the Public Health fund from last year, to the Hospital Repair fund with which to pay for these repairs. This the Common Council did, so that the overdraft was provided for and a balance of $1.20 remained in the fund at the end of the year.

The Postage fund was insufficient by $30.00. This was provided by a resolution of the Common Council authorizing the transfer of that amount from the Labor at Smallpox Hospital fund to the Postage fund.

The fund for Printing and Stationery, $700.00, was necessarily exceeded by $95.11, because the printing of the requisite number of copies of our annual report costs nearly half of that sum, to which must be added the cost of replenishing from time to time the various record books, blanks and office stationery, embracing altogether upwards of eighty descriptions.

The Common Council, on the request of the Board of Health, authorized the transfer of $100.00 from Labor at Smallpox Hospital fund to our Printing and Stationery fund, enabling us to pay all bills chargeable to that fund and leave a balance of $4.89 at the end of the fiscal year.

That we were enabled to transfer from balances in our Labor at Smallpox Hospital and Quarantine Guard funds to the funds mentioned was due to the fortunate circumstance that but very few cases of smallpox occurred in the city during the fiscal year ending June 30 last.

There remained in the Public Health fund at the end of the fiscal year a total balance of $1,326.16.

Smallpox Hospital.

This hospital, cottage and office building are now in a good state of repair so far as the interiors are concerned, but the exteriors are much in need of repainting, and it is respectfully suggested that your honorable body include in the Board of Health estimates for next year a sum sufficient for this purpose.

The lawn presents a fine appearance and is about two acres in extent.

Board of Examiners of Plumbers.

By an act of the State Legislature the Board of Health is required to appoint a Board of Examiners of Plumbers, whose duty it is to hold meetings for the purpose of examining persons who may apply for licenses, to engage in the business or trade of master or journeyman plumbers in Detroit and to issue licenses to those entitled to receive them. A fully equipped shop for this purpose is maintained in the Board of Health building. The Board of Examiners so appointed holds meetings regularly every Wednesday evening at 8 o'clock, at the Board of Health building, for the purposes above mentioned.

The following is a brief statement of the work done during the year by that Board, and of the fees collected:

From renewals of licenses	$ 696 00
From examinations	184 00
From registrations	278 00
Total	$1,158 00

Which amount was paid into the city treasury and credited to the Public Health fund.

The careful examination of those seeking licenses to engage in the business or trade of plumbing is causing much better and more accurate work to be done by plumbers, the public being in this way protected to a large extent against the unhealthful results arising from defective plumbing and drainage work.

Respectfully submitted,

JOHN F. McKINLAY,
Secretary.

REPORT OF THE REGISTRAR OF VITAL STATISTICS.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I respectfully submit the following as the report for the Contagious Disease and Vital Statistics Departments for the year ending June 30th, 1906:

Summary of Mortality.

AGE	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
Under 1 year...	143	131	74	83	83	70	100	104	98	90	96	85	1157
1 to 4 years.....	28	19	16	21	12	20	24	27	30	16	14	22	249
5 to 9 years.....	30	62	69	56	45	37	46	34	40	28	25	46	518
10 to 19 years...	48	57	33	25	58	47	48	46	30	41	30	46	509
20 to 29 years...	32	44	41	32	26	36	41	32	35	32	53	34	438
30 to 39 years...	40	38	56	60	54	41	48	32	36	41	39	30	515
40 to 49 years...	37	20	26	28	32	38	25	36	22	18	31	20	333
50 to 59 years...	36	34	41	48	30	26	31	48	32	46	31	41	444
60 to 69 years ..	38	26	35	25	39	41	42	56	62	54	49	50	517
70 to 79 years...	46	28	30	22	31	50	43	47	42	28	31	34	432
80 yrs.and over.	16	14	18	32	26	15	28	17	15	19	21	24	245
Still-born	44	27	28	23	38	37	24	48	49	50	46	39	453
Premature birth	16	20	9	13	20	14	17	10	20	23	21	12	195
Total.....	554	520	476	468	494	472	517	537	511	486	487	483	6,005

SUMMARY OF MORTALITY—Continued.

Nativities.

Place of Birth	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
Detroit	240	210	158	272	148	273	295	204	240	285	290	272	2,887
Michigan	48	46	59	28	57	81	64	58	63	41	68	79	692
Other States	51	62	60	56	41	54	61	64	49	38	35	40	611
Austria	2	4	1	0	3	1	6	4	2	0	0	6	29
Australia	0	1	3	0	1	1	0	0	0	0	0	2	8
Bohemia	4	0	2	3	0	4	1	2	0	2	1	3	22
Belgium	0	2	0	1	0	3	1	0	5	0	0	5	17
Bavaria	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	38	31	28	30	35	21	20	26	40	53	32	24	378
Denmark	0	0	1	0	0	0	0	0	0	0	0	0	1
England	5	7	14	17	6	11	9	10	15	12	3	6	115
France	0	1	2	0	0	1	3	5	2	1	3	0	18
Germany	87	72	74	60	48	42	36	51	89	72	70	80	781
Greece	0	0	0	0	0	0	0	1	0	0	0	0	1
Holland	1	3	2	0	0	1	0	0	1	3	0	1	12
Hungary	0	0	0	1	2	0	0	1	0	0	2	0	6
Ireland	17	13	15	28	15	19	22	16	17	19	21	6	208
Italy	0	1	1	3	1	0	0	3	2	1	1	3	16
Poland	1	2	3	5	0	7	2	0	1	5	6	0	32
Prussia	1	0	0	1	2	0	1	1	0	2	1	3	12
Russia	4	1	2	0	1	3	2	5	2	1	0	2	23
Scotland	7	3	2	1	5	4	6	8	3	2	3	5	49
Spain	1	0	0	0	0	0	0	0	0	0	0	0	1
Sweden	0	0	0	0	0	0	1	0	0	0	0	0	1
Switzerland	5	0	1	0	0	1	2	1	0	2	1	3	16
Not stated	2	7	8	4	11	6	0	8	7	1	4	11	69
Total	514	466	436	510	376	533	532	468	538	540	541	551	6,005

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
I. General Diseases.													
1 Typhoid Fever (Abdominal Typhus)	5	11	10	8	6	8	5	3	2	1	6	5	70
2 Typhus, Exanthematic	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Fever, Recurrent	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Fever, Intermittent and Malarial Cachexia	0	0	0	0	0	0	0	0	0	0	0	0	0
4a Malarial Cachexia	1	0	1	0	1	0	1	1	1	0	0	0	6
5 Variola	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Measles	0	0	0	0	0	1	2	0	1	4	4	7	19
7 Scarlatina	0	0	0	3	3	5	10	4	12	5	8	5	55
8 Whooping Cough	1	0	0	2	1	2	1	7	6	5	7	2	34
9 Diphtheria and Croup	0	0	0	0	0	0	0	0	0	0	0	0	0
9a Diphtheria	6	5	2	13	17	12	9	4	8	6	7	8	97
10 Grippe	0	1	0	0	1	0	2	0	1	5	1	0	11
11 Miliary Fever	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Cholera, Asiatic	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Cholera, nostras	53	40	13	3	5	1	0	0	0	1	1	17	134
14 Dysentery	2	3	1	0	1	0	1	1	0	0	1	1	11

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
I. General Diseases—*Continued*													
14a Dysentery, epidemic	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Pest (Plague)	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Yellow Fever	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Leprosy	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Erysipelas	1	0	0	0	0	2	5	0	0	2	0	0	10
19 Other Epidemic Affections	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Purulent Infection and Septicæmia	2	2	0	5	5	2	2	1	2	4	6	5	36
21 Glanders and Farcy	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Malignant Pustule and Charbon (Anthrax)	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Actinomycosis, Trichinosis, etc	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Pellagra	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Tubercle of Larynx	1	0	0	0	1	0	1	2	0	0	0	0	5
27 Tubercle of Lungs	35	28	45	25	24	36	42	36	44	36	45	35	431
28 Tubercle of Meninges	3	0	1	2	3	2	5	3	6	4	2	2	33
29 Tubercle, Abdominal	0	0	0	0	0	0	0	0	0	0	0	0	0

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	I. General Diseases—*Continued.*													
30	Pott's Disease	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Abscess, Cold and by Congestion	0	0	0	0	0	0	0	0	0	0	0	0	0
32	White Tumors (White Swellings)	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Tubercle of Other Organs	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Generalized Tubercle	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Scrofula	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Syphilis	0	0	3	3	2	2	2	3	3	5	6	2	31
37	Blennorrhagia of the Adult	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Gonococcic Infections of Children	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Cancer and Other Malignant Tumors of the Buccal Cavity	0	0	0	0	2	1	0	2	0	0	0	0	5
40	Cancer and Other Malignant Tumors of the Stomach and Liver	11	7	8	12	6	13	14	11	8	10	7	8	115
41	Cancer and Other Malignant Tumors of the Peritoneum, Intestines and Rectum	3	2	1	3	1	2	0	2	0	3	6	2	25
42	Cancer and Other Malignant Tumors of the Female Genitals	0	1	3	3	7	0	2	1	1	2	8	4	32
43	Cancer and Other Malignant Tumors of the Breast	3	2	0	0	2	2	2	2	6	1	1	0	21

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	I. General Diseases—*Continued.*													
44	Cancer and Other Malignant Tumors of the Skin	3	2	4	7	5	3	4	8	4	5	5	3	53
45	Cancer and Other Malignant Tumors of Other Organs and Organs not Specified	4	2	1	2	2	0	0	2	4	0	2	2	21
46	Other Tumors (Tumors of the Female Genitals excepted)	1	2	2	0	1	0	0	1	0	0	0	0	7
47	Rheumatism, Acute, Articular	2	0	0	0	0	0	5	1	4	2	0	2	16
48	Rheumatism, Chronic, and Gout	0	0	0	0	0	0	0	0	0	0	0	0	0
49	Scorbutus	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Diabetes	1	1	2	2	6	3	7	3	6	0	6	2	39
51	Goitre, Exophthalmic	1	0	0	0	0	0	0	2	0	0	2	1	6
52	Addison's Disease	2	1	2	1	0	0	1	1	0	1	0	0	9
53	Leukæmia	0	0	1	0	0	0	0	0	0	0	0	0	1
54	Anæmia, Chlorosis	1	7	3	1	2	1	2	4	7	5	5	5	43
55	Other General Diseases	0	0	0	0	0	0	0	0	0	0	0	0	0
56	Alcoholism, Acute and Chronic	2	2	3	1	3	0	0	0	0	1	2	0	14
57	Saturnism	0	0	0	0	0	0	0	0	0	0	0	0	0
58	Other Professional Intoxications	0	0	0	0	0	0	0	0	0	0	0	0	0
59	Other Chronic Poisonings	0	0	0	0	0	0	0	0	0	0	0	0	0

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	II. Diseases of the Nervous System and Organs of Special Sense.													
60	Encephalitis	1	0	0	0	0	0	0	0	1	0	0	0	2
61	Meningitis, Simple	10	5	2	5	1	8	6	12	2	8	5	9	73
61a	Meningitis, Cerebro-Spinal	3	4	3	1	1	1	4	8	12	5	12	4	58
62	Locomotor Ataxia, Progressive	1	0	1	0	0	0	1	0	0	0	0	0	3
63	Other Diseases of the Spinal Cord	0	0	0	0	0	0	0	0	0	0	0	0	0
64	Cerebral Congestion and Hemorrhage	3	8	2	4	2	5	8	8	3	10	6	4	63
65	Cerebral Softening	1	0	0	0	0	0	0	0	0	0	0	0	1
66	Paralysis without Specified Cause	2	1	1	3	1	0	2	1	0	1	1	0	13
67	Paralysis, General	4	5	10	5	4	11	12	8	10	12	14	12	107
68	Other forms of Mental Alienation	1	1	0	2	0	1	0	0	0	0	0	0	5
69	Epilepsy	0	0	1	0	3	3	1	2	1	2	1	1	15
70	Eclampsia (nonpuerperal)	0	0	0	0	0	0	0	0	0	0	0	0	0
71	Convulsions of Children	14	12	12	10	17	12	16	14	23	22	11	19	182
72	Tetanus	0	0	0	0	0	0	0	0	0	1	0	0	1
73	Chorea	0	0	0	0	0	0	0	0	0	0	0	0	0
74b	Other Diseases of the Nervous System	2	1	1	3	1	1	1	1	2	1	1	0	15

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	II. Diseases of the Nervous System and Organs of Special Sense—*Continued.*													
75	Diseases of the Eye and its Adnexa	0	0	0	0	0	0	0	0	0	0	0	0	0
76	Diseases of the Ear	0	0	0	0	0	0	0	0	0	0	0	0	0
	III. Diseases of the Circulatory Apparatus.													
77	Pericarditis	0	1	0	0	0	1	0	0	0	0	1	2	5
78	Endocarditis, Acute	2	2	1	4	2	3	3	6	9	4	3	6	45
79	Organic Diseases of the Heart	21	13	17	17	28	21	19	23	35	26	30	25	275
80	Angina Pectoris	1	2	2	4	1	2	0	2	1	2	1	0	18
81	Affections of the Arteries (Atheroma, Aneurism, etc.)	8	1	1	3	3	6	13	4	7	4	6	10	66
82	Embolus and Thrombosis	0	1	0	3	4	2	0	3	1	1	4	1	20
83	Affections of the Veins (Varices, Hemorrhoids, Phlebitis)	2	0	1	2	2	1	2	0	2	2	2	2	18
84	Affections of the Lymphatic System (Lymphangitis, etc)	4	0	1	0	0	0	0	1	0	1	0	1	8
85	Hemorrhages	8	4	6	4	6	5	4	2	4	7	7	2	59
86	Other Affections of the Circulatory System	5	3	2	4	3	2	5	1	0	4	5	3	37
	IV. Diseases of the Respiratory System.													
87	Diseases of the Nasal Fossæ	1	1	0	0	1	1	0	0	0	0	0	0	4
88	Affections of the Larynx	1	2	0	0	0	0	0	2	2	0	0	0	7

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	IV. Diseases of the Respiratory System—*Continued.*													
89	Affections of the Thyroid Body	0	0	0	0	0	0	0	0	0	0	0	0	0
90	Bronchitis, Acute	2	0	1	1	0	0	3	2	0	2	0	1	12
91	Bronchitis, Chronic	7	3	5	13	12	15	20	18	22	16	20	12	163
92	Broncho-Pneumonia	3	0	1	3	10	8	8	15	22	37	41	15	163
93	Pneumonia	12	12	9	20	39	39	40	51	78	75	56	29	461
94	Pleurisy	1	0	1	0	1	1	0	0	0	1	1	0	6
95	Pulmonary Congestion and Apoplexy	6	6	6	11	13	16	7	12	17	14	14	13	135
96	Gangrene of the Lung	1	1	0	1	2	0	0	0	0	0	0	0	5
97	Asthma	2	3	6	3	1	2	1	0	2	2	1	0	25
98	Pulmonary Emphysema	1	1	0	0	0	0	1	0	0	0	0	2	3
99	Other Diseases of the Respiratory Apparatus (Phthisis excepted)													
	V. Diseases of the Digestive Apparatus.													
100	Affections of the Mouth and its Adnexa	0	0	0	0	0	0	0	0	0	0	0	0	0
101	Affections of the Pharynx	0	0	0	0	0	0	0	0	0	0	0	0	0
102	Affections of the Oesophagus	0	0	0	0	0	0	0	0	0	0	0	0	0

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	V. Diseases of the Digestive Apparatus —*Continued.*													
103	Ulcer of the Stomach	1	1	0	0	1	0	0	1	2	2	0	2	10
104	Other Affections of the Stomach (Cancer excepted)	8	6	3	2	2	0	3	1	26	4	0	8	39
105	Diarrhoea and Enteritis (under 2 years)	32	43	28	32	22	23	24	24	26	21	25	18	318
105a	Diarrhoea and Enteritis, Chronic	7	10	2	13	10	7	3	4	1	4	5	4	70
106	Diarrhoea and Enteritis (two years and over)	18	26	13	12	1	11	6	0	0	6	0	3	96
107	Intestinal Parasites	0	0	0	0	0	0	0	0	0	0	0	0	0
108	Hernias. Intestinal Obstructions	10	5	3	2	1	3	3	5	6	6	11	5	60
109	Other Affections of the Intestines	1	1	0	0	0	0	0	1	1	1	3	1	9
110	Icterus Gravis	2	0	2	0	2	2	1	2	1	0	1	0	13
111	Tumors, Hydatid of the Liver	0	0	0	0	0	0	0	0	0	0	0	0	0
112	Cirrhosis of the Liver	5	3	9	2	2	3	3	2	4	4	4	8	49
113	Biliary Calculi	1	1	1	0	0	1	0	3	0	1	0	1	9
114	Other Affections of the Liver	0	6	3	2	2	2	2	2	4	2	2	3	30
115	Other Affections of the Spleen	0	0	0	0	0	0	0	0	0	0	0	0	0
116	Peritonitis, simple (Puerperal excepted)	6	10	4	6	3	8	12	10	6	5	4	7	81

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	V. DISEASES OF THE DIGESTIVE APPARATUS — *Continued.*													
117	Other Affections of the Digestive Apparatus (Cancer and Tubercle excepted)	0	0	0	0	0	0	0	0	0	0	0	0	0
118	Appendicitis and Abscess of the Iliac Fossa	7	4	3	2	4	3	6	2	3	4	6	2	46
	VI. Diseases of the Genito-Urinary Apparatus and its Adnexa.													
119	Nephritis, Acute	7	17	13	10	19	19	14	12	16	13	14	11	165
120	Bright's Disease	0	0	0	0	0	0	0	0	0	0	0	0	0
121	Other Diseases of the Kidneys and their Adnexa	5	5	5	3	7	3	7	7	10	6	8	4	70
122	Calculi of the Urinary Tract	0	0	0	0	0	0	0	0	0	0	0	0	0
123	Diseases of the Bladder	0	0	0	0	0	0	0	0	0	0	0	0	0
124	Diseases of the Urethra, Urinary Abscess, etc	0	0	0	0	0	0	0	0	0	0	0	0	0
125	Diseases of the Prostate	0	1	0	0	0	0	0	0	0	0	1	0	2
126	Nonvenereal Diseases of the Male Genital Organs	0	0	0	0	0	0	0	0	0	0	0	0	0
127	Metritis	0	0	0	0	0	0	0	0	0	0	0	0	0
128	Hemorrhage, Uterine (nonpuerperal)	0	0	0	0	0	0	0	0	0	0	0	0	0
129	Tumors, Uterine (noncancerous)	0	0	0	0	0	0	0	0	0	0	0	0	0
130	Other Diseases of the Uterus	1	1	2	2	6	3	7	3	6	0	6	2	39

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	VI. Diseases of the Genito-Urinary Apparatus and its Adnexa—*Continued.*													
131	Cysts and other Tumors of the Ovary	0	0	0	0	0	0	0	0	0	0	0	0	0
132	Other Diseases of the Female Genital Organs	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Nonpuerperal Diseases of the Breast (Cancer excepted)	0	0	1	0	2	1	0	2	1	2	0	3	12
	VII. The Puerperal State.													
134	Accidents of Pregnancy	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Hemorrhage, (Puerperal)	2	1	0	1	0	0	0	0	3	1	0	0	8
136	Other Accidents of Labor	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Septicæmia (Puerperal)	1	2	0	1	1	1	2	2	1	3	1	6	21
138	Albuminuria and Puerperal Eclampsia	0	3	2	3	1	1	1	1	3	3	6	2	26
139	Phlegmasia Alba Dolens, (Puerperal)	0	0	1	0	1	0	1	1	0	0	0	0	4
140	Other Puerperal Accidents—Sudden Death	0	0	0	0	0	0	0	0	0	0	0	0	0
	VIII. Diseases of the Skin and Cellular Tissue.													
142	Gangrene	2	0	0	0	3	1	0	2	0	1	0	2	11
143	Furuncle (Carbuncle)	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Abscess Warm	0	0	2	4	3	2	1	4	0	1	4	4	25
145d	Other Diseases of the Skin and its Adnexa	0	0	0	0	0	0	0	0	0	0	0	0	0

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	IX. Diseases of the Organs of Locomotion.													
146	Affections of the Bones (non-tuberculous)	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Arthritis and other Affections of the Joints (Tubercle and Rheumatism excepted)	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Amputation	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Other Affections of the Organs of Locomotion	3	0	0	0	0	2	2	0	1	1	3	2	14
	X. Malformations.													
150	Malformations, Congenital (Stillbirths excepted)	2	0	2	0	0	2	0	1	0	0	0	0	7
	XI. Early Infancy.													
151	Congenital Icterus. Debility and Sclerema	6	0	2	2	4	5	3	1	4	4	2	3	36
	XII. Old Age.													
152	Senile Debility	19	21	23	20	18	29	22	19	18	25	22	22	258
	XIII. Affections Caused by External Causes.													
153	Suicide by Poison	1	2	4	4	2	2	1	0	2	4	6	3	31
154	Suicide by Asphyxia	0	0	0	0	0	0	0	0	0	0	0	0	0

SUMMARY OF MORTALITY—Continued.

	CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
	XIII. AFFECTIONS CAUSED BY EXTERNAL CAUSES—*Continued.*													
155	Suicide by Hanging or Strangulation	0	1	0	1	0	2	1	0	1	1	0	1	8
156	Suicide by Submersion	1	0	0	0	0	0	0	0	0	1	0	0	2
157	Suicide by Firearms	0	0	0	0	0	0	0	3	1	0	1	2	7
158	Suicide by Cutting Instruments	0	0	1	0	3	1	0	0	0	0	0	0	5
159	Suicide by Jumping from High Places	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Suicide by Crushing	0	0	0	0	0	0	0	0	0	0	0	0	0
161	Other Suicides	0	0	0	0	0	0	0	0	0	0	0	0	0
162	Fractures	6	9	2	8	4	6	3	2	6	4	4	5	59
163	Luxations	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Other Accidental Traumatisms	4	6	4	6	5	2	7	2	5	7	5	3	56
165	Burns and Scalds	1	2	2	6	0	0	3	1	2	3	5	0	31
166	Burning by Corrosive Substance	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Insolation	3	0	1	0	0	0	0	0	0	0	0	0	4
168	Freezing	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Electrical Disturbances	1	0	0	1	0	0	0	0	0	0	0	0	2
170	Accidental Submersion	0	3	5	0	0	0	0	1	0	4	1	2	16

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
XIII. AFFECTIONS CAUSED BY EXTERNAL CAUSES—*Continued.*													
171a Inanition	7	6	7	5	9	4	9	11	7	9	7	9	90
172 Absorption of Deleterious Gases, Suicide excepted	0	0	1	2	1	0	0	0	1	0	0	0	5
173 Other Acute Poisonings	2	3	2	2	1	1	0	0	0	0	3	1	15
174 Other External Violence	0	0	0	0	0	0	0	0	0	0	0	0	0
XIV. Ill-Defined Diseases.													
175 Dropsy	5	2	5	4	2	0	1	1	5	1	5	4	35
176 Sudden Death	0	0	0	0	0	0	0	0	0	0	0	0	0
177 Unspecified or Ill-defined Causes of Death	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residents.													
Still-births	44	27	28	23	38	37	24	48	49	50	46	39	453
Premature Births	16	20	9	13	20	14	17	10	20	23	21	12	195
Totals	246	251	195	194	200	191	196	197	208	227	233	204	2542

Contagious Diseases.

Table showing deaths by months from contagious diseases.

DISEASE	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
Diphtheria.....	6	5	2	13	17	12	9	4	8	6	7	8	97
Scarlet Fever...	0	0	0	3	3	5	10	4	12	5	8	5	55
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0

Table showing present condition of contagious diseases.

DISEASE	Total number of cases June 30th, 1905	DURING THE YEAR			Total number of cases June 30th, 1906	Number of houses quarantined June 30th, 1906
		New cases reported	Recoveries reported	Deaths		
Diphtheria.....	8	804	707	97	10	8
Scarlet Fever.....	10	487	432	55	31	28
Smallpox.....	1	20	20	0	4	2

Contagious Diseases.

Table showing cases reported by months in comparison with preceding years.

MONTH	Diphtheria				Scarlet Fever			
	1903	1904	1905	1906	1903	1904	1905	1906
July, 1905	24	48	49	31	21	17	10	5
August	46	62	69	38	62	10	13	12
September	59	86	48	31	56	26	33	8
October	83	76	65	96	95	43	28	27
November	193	224	96	105	126	38	55	22
December	138	252	104	102	45	87	44	44
January, 1906	110	211	78	108	54	106	28	58
February	68	119	62	61	36	78	19	40
March	64	84	89	73	24	59	45	106
April	51	95	82	69	29	49	41	81
May	66	75	95	58	31	39	39	58
June	74	101	56	32	19	23	29	26
Total	976	1 433	893	804	598	575	384	487

Medical Inspection of Schools.

Following is the total result of such inspection:

Number of pupils examined	26,536
Number of pupils excluded	1,872

CAUSES OF EXCLUSION

Scarlet fever	13
Diphtheria	12
Tonsillitis	475
Measles	85
Roetheln	12
Mumps	42
Smallpox	0
Chicken-pox	105
Whooping Cough	157
Pediculosis	236
Ringworm	104
Impetigo	326
Scabies	165
Other diseases	151
Total	1 872

Births Reported.

For the year ending June 30th, 1906.

MONTH	Male	Female	Total
July, 1905	110	115	225
August	131	99	230
September	121	111	232
October	116	91	207
November	126	84	210
December	111	96	207
January, 1906	258	236	494
February	287	274	561
March	392	396	788
April	384	375	759
May	329	317	646
June	377	344	721
Total	2,742	2,538	5,280

SUMMARY OF MORTALITY—Continued.

Table showing computation for the death rate of the city.

MONTHS	Total	Still-born	Premature Birth	Died Outside of City	Net
July, 1905	540	44	16	16	464
August	456	27	20	10	399
September	394	28	9	12	345
October	416	23	13	15	365
November	465	38	20	14	393
December	444	37	14	9	384
January, 1906	498	24	17	6	451
February	499	48	10	16	425
March	579	49	20	15	495
April	595	50	23	22	500
May	614	46	21	20	527
June	505	39	12	24	430
Total	6,005				5,178
Still-born premature birth, and died outside	827	453	195	179	827
Total deaths in city	5,178				6,005

Death rate per 1,000 per annum 13.99, on a basis of an estimated population of 370,000 inhabitants. Roy W. Dean, Permit Clerk during the year ending June 30, 1906, copied 5,178 Certificates of Death and forwarded them to the Secretary of State. Since January 1st, 1906, the date of inauguration of the new system of reporting births, the Permit Clerk has also copied 3,910 Certificates of Births and transmitted same to the Secretary of State.

Respectfully submitted,

H. T. RENSHAW,

Registrar.

REPORT OF FUNERAL INSPECTOR.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—The following report for the fiscal year ending June 30th, 1906, is most respectfully submitted:

	Funerals Attended		DISINFECTIONS						
	Diphtheria	Scarlet Fever	Houses for Consumption	Houses for Pneumonia	Houses for Meningitis	Houses for Typhoid Fever	Parcels of Clothing	Persons	School Rooms
July, 1905	6	.....	29	40	10	8	12	24	.....
August	3	.....	31	37	5	8	3	23	.....
September	2	.....	32	35	8	11	7	21	12
October	14	2	31	41	6	7	7	59	7
November	9	4	34	37	11	9	14	38	20
December	12	6	37	45	7	10	17	51	34
January, 1906	14	5	32	40	12	3	15	60	52
February	8	3	38	43	6	2	13	34	38
March	5	6	30	39	9	1	18	37	40
April	6	12	31	41	11	3	24	66	10
May	8	6	35	44	8	2	19	55	30
June	6	4	32	40	10	2	16	49	5
Total	93	48	392	482	103	66	165	517	248

Respectfully submitted,

ROBT. P. VANDY,

Funeral Inspector and Disinfector.

REPORT OF MEDICAL INSPECTOR.

July 1st, 1906.

Guy L. Kiefer, M. D., Health Officer:

Dear Sir—I most respectfully submit the following report for the fiscal year ending June 30th, 1906, as Medical Inspector and Disinfector for the west side of the city.

A comparison of the last fiscal year with the year just ending, shows a slight increase of both scarlet fever and diphtheria in this district, notwithstanding the religious adherence to the rules of the department as heretofore. All suspicious cases were promptly investigated and all the homes of persons removed to the hospital disinfected. An explanation for the increase, then, might seem necessary to those not familiar with the methods established by you for ascertaining, almost perfectly, the number of cases existing from day to day through sources other than the attending physician, who may inadvertently overlook a mild case, and to whom in the past all information regarding these diseases had to be obtained.

If the etiology is to be expressed in one general term I should say that the "Campaign of Education" is a large factor in the apparent increase of these diseases. The medical inspection of schools have not only discovered many of the milder cases of scarlet fever and diphtheria, but have educated the parents to observe the physical condition of their children more closely, and consequently have detected and brought to our notice cases that heretofore were overlooked and hence not reported to the department. I take it then, that the increase is rather apparent than real, and the perfection of the system is reflected in the true status of the diseases as shown by the figures hereto appended.

Another factor that might be considered in studying the causes of diphtheria and scarlet fever increase in this territory is meteorolog-

ical influences. The humidity in the atmosphere for the winter of 1905 and 1906 was greater than at any time since you assumed the functions of Health Officer: this humidity furnished a more active media for the development of the germs of these diseases than heretofore, and correspondingly lessened the resisting power of the children, while increasing their susceptability. While this conclusion is probable, it is to my mind of minor importance. It is more than probable that the first factor is the real one and that we have had no increase at all, but a fuller light upon conditions which were heretofore obscured by ignorance.

If success is to be measured by results, your honorable board should feel gratified at the achievements of the contagious diseases department, for under the present system no case can exist without your knowledge.

I desire to especially call your attention to the uniform courtesy shown the "Medical Inspector" by the physicians in the district and to return thanks through you for the hearty co-operation in the work of eliminating contagion, and the confidence imposed by calling me in consultation upon suspicious cases, when the business of the department called you elsewhere.

Diphtheria.

As heretofore the number of houses disinfected rather than the number of cases inspected in each home, are indicated by the figures given in relation to diphtheria. Inquiry into the more generous use of "Antitoxine," reveals the fact that its use has materially increased over last year, and that the confidence of the laity in its efficacy has grown to the point of demand. The observation made two years ago with reference to diphtheria and unpaved streets, again impresses itself upon me. Eighty-five per cent of the cases were located in residences situated upon unpaved streets, the relation I do not attempt to explain, but the fact existed. I would most respectfully urge a study of the conditions with a view to

recommending to the public authorities the necessity of paving as rapidly as possible all streets in the city as a means to improve sanitation, and further reduction of contagious diseases.

Scarlet Fever.

Contrary to former years very few cases of scarlet fever were through desquamating on the twenty-first day; this you will note by the increase in miscellaneous calls under which head I have placed all negative calls, etc.

Slow desquamation was no doubt due to the humidity in the atmosphere; my attention being called to that fact by a recent observer in the A. M. Journal. The average sign was removed on the twenty-eighth day and quite a few were up six weeks. Either the process began later for the reasons mentioned or else earlier in the past under different conditions.

Smallpox.

Again I have the pleasure to report my district free from smallpox, their being no cases originating in the same during the year. I disinfected twelve houses and vaccinated the inmates and all direct and indirect exposures, and observed the exposed persons for a period of seventeen days.

Miscellaneous.

There were one hundred and sixty-one calls made during the year for purposes other than scarlet fever and diphtheria disinfections, therefore, classified as above. They include medical inspections of maternity homes, nurseries, calls to confirm diagnoses of medical school inspectors and other physicians, inspections as to the possibility of isolation at private homes, and disinfections of tuberculosis, pneumonia, typhoid, meningitis, whooping-cough, school rooms and business places, and calls to vaccinate exposed persons to smallpox. The total number of calls for the year was six hundred and forty-four, divided as follows:

Inspection of suspicious cases 82, diagnosed as follows:

Smallpox	12
Scarlet fever	21
Measles	6
Diphtheria	10
Chicken-pox	7
Miscellaneous—	
Urticaria	
Eczema	
Tonsillitis	26
Impetigo	
Dermatitis Medica-Mentosa	

Seventy-nine calls include the number of incidental disinfections, calls made without results, and calls heretofore mentioned.

Disinfections.

Scarlet fever	221 houses
Diphtheria	251 houses
Smallpox	12 houses
Total number of disinfections	483
Total number of calls for all purposes	644

Respectfully submitted,

JAMES W. AMES, M. D.,
Medical Inspector.

REPORT OF MEDICAL INSPECTOR AND DISINFECTOR.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

Dear Sir—I respectfully submit the following report for the year ending June 30th, 1906:

It is again my pleasure to report a decrease in the number of disinfections done this year over the number performed during the year previous. The constant decrease in the number of houses disinfected each year shows a decrease in the number of cases of contagious disease. During the year ending June, 1905, there were 804 houses disinfected by me and of these 19 were cases of smallpox, 210 scarlet fever and 575 diphtheria. This year the total number was only 513, of which 13 were smallpox, 225 scarlet fever and 275 diphtheria. It will be seen from these figures that the reduction in diphtheria was particularly marked, there being less than one-half as many houses placarded and subsequently disinfected this year as the year previous. The number of cases of smallpox was slightly decreased and scarlet fever very slightly increased. I am of the opinion that the system of medical inspection of schools, introduced by yourself, has much to do with keeping the contagious diseases in check and the liberal giving of antitoxin for the purposes of immunization and prevention in case of diphtheria is showing most excellent results. Formerly it was difficult for physicians to get antitoxin from the Board of Health, but since you have adopted the plan of giving this remedy freely to anyone for purposes of prevention, it seems to me the reduction in the number of cases of diphtheria has been more marked.

Besides my regular work of disinfecting, I made a number of inspections during the year to determine the diagnosis in cases reported as suspicious. One hundred and eleven such cases were investigated.

I herewith append a tabulated statement of the disinfections performed and calls made during the year:

Disinfections.

Scarlet Fever	225
Diphtheria	275
Smallpox	13
Total	513

Cases Investigated.

Measles	21
Chickenpox	11
Impetigo	29
Miscellaneous	50
Total	111

Respectfully submitted,

PHILIP J. LORANGER,

Medical Inspector and Disinfector.

REPORT OF QUARANTINE INSPECTOR.

July 1st, 1906.

Guy L. Kiefer, M. D., Health Officer:

The following is respectfully submitted as my report for the fiscal year ending June 30th, 1906:

	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
Number of Visits	195	200	255	608	423	334	437	498	750	633	567	351	5251
Number of Grocery Orders..	32	12	15	59	38	32	61	47	82	72	70	47	567
Number of Fuel Orders.....	.....	1	1	11	7	8	11	12	22	13	3	2	91

Considering the increase of population in Detroit during the past year, the Board of Health and Health Officer deserve the congratulations of the public in general upon the low rate of contagious disease throughout our city. Your Inspector in charge of that part of the city east of Woodward Avenue cared for 120 families quarantined for scarlet fever and 302 families quarantined for diphtheria.

Respectfully submitted,

B. F. SCHELLBERG,
Quarantine Inspector.

REPORT OF QUARANTINE INSPECTOR.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—The following is my report for the fiscal year ending June 30th, 1906:

Food and fuel supplies furnished and visits made during the fiscal year mentioned for that part of the city west of Woodward Avenue.

	July, 1905	August	September	October	November	December	January, 1906	February	March	April	May	June	Total
Number of Visits	176	74	108	131	432	619	887	431	813	750	714	391	5526
Number of Grocery Orders..	31	4	3	8	54	69	87	51	65	58	39	19	488
Number of Fuel Orders.....	1	.....	.....	3	15	17	12	11	13	11	7	1	91

During the fiscal year just closed the deaths from contagious diseases compared to former years, show a gratifying decrease. No smallpox cases were quarantined in private houses, and all cases discovered willingly went to the smallpox hospital from whence they soon returned fully recovered and with loud praises for the institution and its attendants, dread for the so-called "pest house" having entirely disappeared.

The same would be true of the contemplated Contagious Disease Hospital to receive scarlet fever, diphtheria and other contagious patients when completed, where many a life might be saved by the patient receiving proper care and attention from physicians, nurses and attendants.

Respectfully submitted,

HERMAN F. BOLDT,
Quarantine Inspector.

REPORT OF SMOKE INSPECTOR.

Detroit, July 1st, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I respectfully submit the following as my report for the year ending June 30th, 1906:

Number of observations and interviews, uncertain.	
Number of notices sent out	73
Number of letters sent out	102
Number of mechanical stokers installed and in course of being installed	108
Number of automatic smoke preventing devices installed	12
Number of all other devices (steam jets, etc.), installed	16
Number of unsatisfactory devices removed and replaced by others	2
Number of complaints made in Recorder's Court	26
Number of convictions	11
Number of sentences suspended	11
Number of cases dismissed	4
Number of fines imposed	0
Number of cases still pending	11
Number of cases withdrawn because smoke had been abated	11
Estimated cost of mechanical stokers installed	$71,500 00
Estimated cost of all other smoke preventing devices installed	1,360 00
Total	$72,860 00

Places where mechanical stokers were installed, and are in course of being installed, in Detroit between July 1st, 1905, and July 1st, 1906, and the number installed:

Murphy Power Company	12
Great Lakes Engineering Company	1
Peninsular Stove Company	1
Board of Education, McKinstry School	1
Board of Education, Alger School	1
Board of Education, Houghton School	1
Board of Education, Tilden School	1
Board of Education, Norvell School	1

Board of Education, Tappan School	1
Board of Education, Estabrook School	1
Board of Education, Capron School	1
Board of Education, Sill School	1
Board of Education, Monteith School	1
Board of Education, Goldberg School	1
Board of Education, Chandler School	1
*Detroit University School	1
F. B. Stevens Company	2
Grand Laundry	2
Nelson Baker & Company	1
West Side Brewery	2
*Holliday Box Company	2
Detroit Copper & Brass Rolling Mills	2
Detroit Creamery Company	2
E. I. Kruce & Company	1
Packard Motor Car Company	2
People's Ice Company	3
*Detroit Cereal Company	1
*Wayne Hotel	2
*A. Jacobs & Company	1
Hees McFarlene Company	1
Thos. Barlum & Sons	1
Clayton & Lambert	1
Detroit Steel Castings Company	3
Detroit City Gas Company—Station A	1
Detroit City Gas Company—Station B	3
Breitmeyer Building	2
Michigan Carbon Works	6
Tivoli Brewery	1
Ireland & Mathews Mnfg. Company	2
Parisian Laundry Company	1
Detroit Water Works	6
Detroit Steel Cooperage Company	1
The Phoenix Wire Works	1
*Detroit United Railway	4
*Detroit City Gas Company—Station A	4
*Michigan Copper & Brass Company	3
*Penberthy Injector Company	1
*Board of Education, Webster School	1
*Board of Education, Trowbridge School	1
*Detroit White Lead Works	1

Morgan & Wright Company	10
*Michigan Wire Cloth Company	2
*Kling's Brewery	1
Total	108

Those marked (*) are in course of installation.

You will observe the very liberal increase in the number of mechanical stokers installed during the year with a corresponding decrease in the number of other so-called smoke preventing devices. This I think is an indication that manufacturers are becoming alive to the fact that mechanical stoking is the most economical and also the only way to keep down the great clouds of black smoke where bituminous coal is used. It is gratifying to note the number of mechanical stokers being installed in the public schools and the effect of this is very noticeable, the result being that we did not have one-quarter the complaints against schools last year that we have had in previous years. There are still a large number of very smoky manufacturing plants, the principal cause being overcrowding of the boilers. This is one of the difficulties encountered in getting clean chimneys in many plants, many of the manufacturers being under the impression that if they can get the work out of the boilers it is nobody else's business and they should be allowed to make all the smoke they want to. Another difficulty we have to contend against all the time, is the so-called manufacturing districts. There are no manufacturing districts which do not also contain dwelling houses. The manufacturer will say that they are all occupied by people who work in his factory. The river front south of Jefferson Avenue and Fort Street West may be classed as a so-called manufacturing district and if the railways, steamboats and manufacturing plants operating there are allowed to smoke, Detroit will never be a clean city.

My contention is that if smoke can be stopped in a factory located in a residence district it can be and should be stopped everywhere. I trust our courts will soon so decide.

The number of abatements may be best recorded by the number of mechanical stokers and automatic smoke preventing devices installed. All other devices are only makeshifts at the best and are continually giving us trouble. Twenty-two of the twenty-six complaints made during the year were against plants which had unreliable devices or else because of neglect of the fireman to work them. It is true, however, that we have a great deal of trouble in keeping the very best devices at work because of carelessness or inability on the part of the person in charge to keep the device in working order. In this connection rather than to make complaint to the court against the offenders, I have put in working order, or assisted in doing so, over 100 devices during the year past. Notwithstanding all these obstacles I think we are improving smoke conditions when we consider the number of devices in use now compared to three years ago and that new and inexperienced men are often put in charge. In this connection it has occurred to me that it would be a good thing to ask the boiler inspector when he is examining engineers who are asking for a license, to require them to satisfactorily answer the question: "Do you understand the working of the various kinds of devices for the prevention of smoke," and to fully examine them on that subject. This feature was discussed at the late convention of smoke inspectors and I hope to have it incorporated in the recommendations by the committee who have these matters in hand at the next convention.

The street railway people are working at the new addition to their power house which was promised us would be completed about this time but from present appearances it will be from 60 to 90 days before it is completed, they having had difficulty in getting material. This addition of fourteen hundred horse power of boilers without adding any more engines ought to make a wonderful difference in the matter of controlling the emission of smoke from these plants. The only thing I fear about the installation is that the boilers are too large for the stokers, but the stoker manufac-

turers express their confidence that they have made alterations and improvements to cover this. I hope it will come out all right.

Another thing that ought to make a wonderful difference to the Jefferson Avenue district in the immediate future is the removal of the Grand Trunk Railway roundhouse to the Milwaukee Junction district. The excavation for the new roundhouse is now being made and when this house is completed it will cause the removal of at least 25 smoking engines from their present site at the foot of Orleans Street to the district above mentioned. This company has fought us inch by inch in our efforts to force them to abate the smoke from the car transfer steamer Lansdowne, even compelling us to go to Chicago where they were about to take testimony to show that the making of smoke on steam boats could not be preevnted, but we practically scared them out there, they finding that the testimony of their witnesses would support our contention that such smoke could be prevented. Their attorney therefore refused to go on with the examination. Two different parties have offered to put in smoke preventing devices on this boat at a cost of about $2,000.00 and it is my impression that their owners will be compelled to try one of them.

The pictures on pages 58, 59, 60 and 61 are of plants whose managers and owners claim that smoke is unavoidable in their business and all our arguments, pleadings and threatenings have been of no avail, so that we have decided to make complaints to the courts against them.

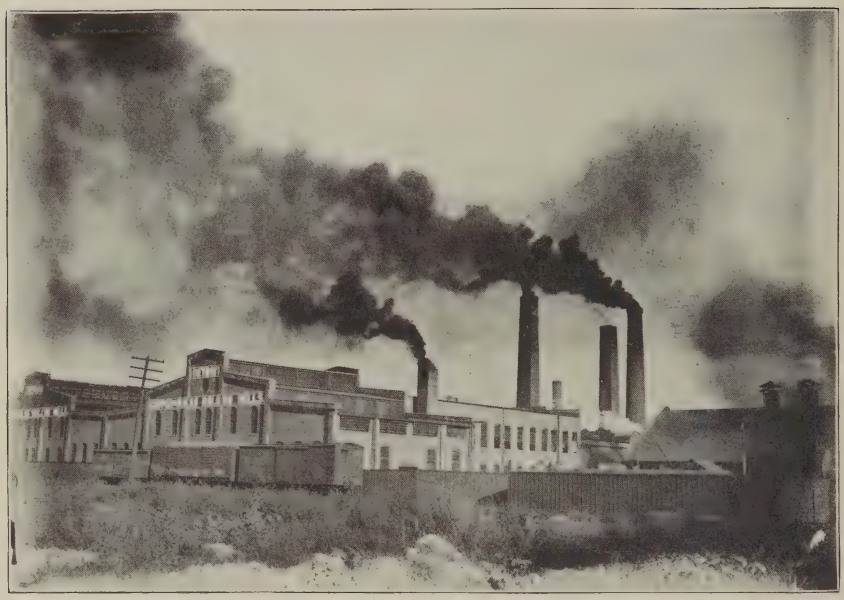
No. 1 is of the Detroit Copper & Brass Rolling Mills. On the right of the picture is shown smoke coming from the American Car & Foundry Co. Rolling Mills across the street.

No. 2 is of the American Car & Foundry Co.'s plant.

No. 3 is another view of part of the Detroit Copper & Brass Rolling Mills.

No. 4 is of the Detroit Seamless Steel Tubes Co. plant.

As you are aware an International Convention of Smoke In-



No. 1

No. 2

No. 3

No. 4

spectors was held in this city in June, to which I am informed, you have alluded in your report.

In my last annual report I called your attention to the necessity of engaging some assistance for this department.

I again take the liberty of urging you to take this matter into consideration. The number of steam plants is increasing very rapidly. A large area of new territory has been added to the city and the work of this department has increased in proportion and I frankly admit it is a physical impossibility for one man to properly cover the ground.

Respectfully submitted,

JOHN FAIRGRIEVE,
Smoke Inspector.

REPORT OF SANITARY ENGINEER.

July 2nd, 1906.

Guy L. Kiefer, M. D., Health Officer:

Dear Sir—I herewith submit a report of the work of the sanitary department for the year ending June 30th, 1906.

An examination of the tables at the end of this report will show an increase of the work along all lines. In the plumbing department there were 9,678 drainage inspections against 8,095 a year ago. During the month of May there were 1,147 inspections again 771 a year ago. Since the 1st of May the inspectors have had more calls than they could attend to as promptly as they should. Mr. Wm. G. Williamson, special inspector, has taken care of the calls from the new addition to the city of the 18th Ward. The most urgent need of this new addition is the construction of public sewers to receive the drainage of the buildings, large sections of which have cesspools only and the few sewers they have are inadequate to take care of the surface drainage during the rainy season.

Complaints for non-collection of garbage have steadily increased during the past few years, there being 2,375 during year ending June 30th, 1904; 3,139 for year ending June 30th, 1905, and 3,827 for the past year, showing collection has not kept pace with the growth of the city.

As our population increases the proper sanitary disposal of the waste refuse in our alleys becomes more and more of a problem demanding attention. Our present method of dumping all such refuse on low land in different sections of the city is causing protest by adjoining residents and justly so as what constitutes a nui-

sance and a menace to public health in our alleys, is equally so wherever dumped. To stop the practice in any given locality is only to transfer the nuisance to another. The time will come when a demand will be made by the public for the disposal of this waste in a manner which shall not give public offense as is now being done.

Our records are now kept by the card system, for every piece of plumbing or drain there is a corresponding card giving its history from its beginning to its final completion and acceptance by the department. The same is true of our nuisance complaints, the cards show the nature of complaint, what was found on investigation, how and when it is abated. During the past year there have been 1,950 complaints for unsanitary conditions causing a nuisance and 3,827 complaints for non-collection of garbage.

After January 1st last, the sanitary squad of the police department reported directly to our office on all nuisance complaints until abatement took place or complaint was dismissed from being no cause for complaint. The last of April, three officers from the sanitary squad were given to our department to give their entire time to this work under our direct supervision. The following is a report of such work since January 1st last:

Total number of nuisance complaints received		925
Found no cause for camplaint	167	
Wrong address given, not located	13	
Pending in court or time given to abate not yet expired	82	
Abated	663	
		925

Drainage Inspections.

MONTH	Plumbing of Buildings		Sewers	Special	Smoke Tests	Total.
	New	Old				
1905						
July	306	75	322	122	2	827
August	307	65	358	77	1	808
September	304	64	287	91	3	749
October	253	68	288	72	3	684
November	339	49	284	47	2	721
December	231	59	297	89	2	678
1906						
January	349	71	306	90	3	819
February	153	52	232	63	7	507
March	277	90	247	69	3	686
April	332	136	437	50	3	958
May	450	224	417	52	4	1147
June	416	103	500	74	1	1094
Total	3717	1056	3975	896	34	9678
Last year	.....	.....	.....	.....	.....	8095
1903 and 4	.....	.....	.....	.....	.....	7248
1902 and 3	.....	.....	.....	.....	.....	6612
1901 and 2	.....	.....	.....	.....	.....	4815

Work performed for department by Sanitary Police:

MONTH	Contagious Disease Circulars Distributed	Nuisance Complaints investigated	Houses Placarded for		
			Scarlet Fever	Diphtheria	Small-pox
1905					
July	81	282	3	24	0
August	108	283	10	26	0
September	93	204	8	23	0
October	264	125	20	68	0
November	270	64	15	75	0
December	327	67	33	76	0
1906					
January	360	52	43	77	0
February	213	60	29	42	0
March	372	39	74	50	0
April	262	175	62	34	0
May	207	238	45	44	0
June	123	361	19	22	0
Total	2680	1950	361	561	0
Last year	2589	1588	250	613	5

Complaints for non-collection of garbage with cause of complaint:

MONTH	Total Number of Complaints	Due to Neglect of Collector	Not the fault of Collection
1905			
July	417	306	111
August	634	501	133
September	584	403	181
October	192	151	41
November	125	101	24
December	195	163	32
1906			
January	120	106	14
February	214	168	46
March	183	150	33
April	145	108	37
May	291	205	86
June	727	549	178
Total	3827	2911	916
Last year	3139	1241	949

Cost of table supplies for persons quarantined during the year:

MONTH	No. of Families		No. of Persons Supplied	Cost of Supplies for		
	Quarantined	Supplied		Families	City Hospital	Total
1905						
July	27	18	89	$ 126.69	$ .55	$ 127.24
August	36	11	63	54.71	2 00	56.71
September	31	9	54	48.46	5.11	53.57
October	88	30	157	160.73	2.00	162.73
November	90	36	207	222.11	.....	222 11
December	109	38	195	257 63	.....	257.63
1906						
January	120	54	360	320.93	4.99	325 92
February	71	36	186	218.03	15.18	233.21
March	124	43	235	324 57	37 45	362.02
April	96	53	262	322.57	53.47	376.04
May	89	43	204	252 12	29.33	281.45
June	41	19	99	152 89	31.85	184 74
Total	922	390	2111	$2461.44	$181.93	$2643.37
Last year	866	334	1664	1850.31	388.07	2238.38

There has been a slight increase in the cost of supplies to families quarantined during the year from an increase in the number of persons, there being 2,111 against 1,664 a year ago. Nine hundred and twenty-two families were placed under quarantine during the year and only 390 needed assistance from the city.

Since sending out the circular letters to Architects and Builders the first of the year calling attention to the provision of Rule No. 5, requiring the filing of drainage plans and specifications before the erection of the building and that during the coming season this would be insisted upon, there has been a very favorable response, there having been 349 plans or sketches submitted and

filed up to June 30th. Over two-thirds of all the buildings erected are put up by builders who duplicate one of 4 or 6 plans of different style of house. When these plans have been approved they apply for the entire season where no new plans are used. Again a very large number of buildings erected are cottages having no plumbing work, only a sink and an outside closet on rear end of lot. Very few buildings have regular prepared plans by architects. Our new rules and regulations which have been amended will be ready for distribution shortly and will be mailed to every plumber, architect and builder, after which offenders against their provisions will be prosecuted as provided in the Act under which the rules are formulated. We have made several complaints in court against plumbers and drain layers for violation of the rules and have been sustained by the court in every instance.

In a city the size of Detroit it is no easy matter to see that no plumbing or house drain is put in without being inspected as required by the regulations, especially as we have only four inspectors for this work, Mr. Wm. G. Williamson being a special inspector whose whole time is occupied in examining old defective work of the past and going into court when necessary to give the testimony needed to bring about abatement in bad cases.

In order to keep track of all work and see that none escapes, we keep a daily record of all the permits issued by the Board of Public Works for connection to our public sewers. These are watched and as fast as a call is received for inspection they are checked off, in this way we know if any are not reported and who to hold responsible and have work uncovered. Complaints against drain layers are for this cause. We also receive daily the record of the building permits issued by the Fire Marshal but experience has shown us these are not as valuable as the sewer permits for two reasons: First, a great many buildings are nearly finished before the building permit is taken out. The plumbing and sewers are all in long before this is done. Second, any one can get a

building permit and the name of the one to whom it is issued can not be found in our city directory. With sewer permits, none can be issued until the applicant produces a certificate of registration by the Board of Health. See Section 14, of Public Act No. 222, laws of 1901. This gives us perfect control over plumbers and drain layers. When they violate our regulations they are dealt with as provided in this Act. Our court records will show this is being done and successfully so.

Respectfully,

A. B. RAYMOND,
Sanitary Engineer.

REPORT OF ANALYST AND BACTERIOLOGIST.

July 1st, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—I beg to submit the following report of the work done in this department during the past year, ending June 30th, 1906:

Bacteriological Examinations.

Cultures for Bacillus Diphtheriae	659
In which Bac. Diph. was found	274
In which Bac. Diph. was not found	385
Sputa for Tubercle Bacilli	551
In which Bac. Tbc. were found	238
In which Bac. Tbc. were not found	313
Examinations for Diplococcus Gonorrhoea	107
Widal Agglutination tests	41
Blood examinations for Haematozoon Malariae	8
Plate cultures of water	81
Examinations of milk	234
Wisconsin Curd test	29
Animal Inoculations	35
Microscopical exam. of sections of meat, etc. (tbc., trichina, etc.)	18
Testing disinfectants (cultures)	116
Examinations of pus	22
Examination of Feces for Amaeba Dysenteriae	1
Examinations of sputum for Diplococcus Pneumoniae	28
Examinations of cerebro-spinal fluid for Meningococcus	5
Examinations for Treponema Pallida	112
Examinations of Semen	2
Lumbar punctures	3
Miscellaneous cultures	260
Total Examinations	2312

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Chemical Examinations.

Milk analyses	2010
Samples of Milk below standard	153
Samples of Cream	17
Samples of Water	25
Samples of Milk for preservatives	1820
Number of samples containing preservatives	8
Miscellaneous food analyses	8
Experimental analyses	44
Olive oil	2
Paint	1
Flavoring extracts	10
Proprietary medicines, etc.	20
Meat preservatives	4
Butter	11
Lard	5
Human milk	2
Determinations of carbon dioxide in air	27
Quantitative determination of alcohol	10
Cream thickener	1
Diazo reaction	12
Poisoned meal for police dept.	1
Medicine for police dept.	1
Wall paper for arsenic	2
Bread and cake	2
Ice cream thickeners	7
Cream of tartar	1
Anilin color in pop corn	1
Anilin color in wines	2
Pepper	1
Total Examinations	4047

Miscellaneous.

Photographs for Smoke Inspector	18
In court	7
Diphtheria sets prepared	820
Culture media prepared, cubic centimeters	32 800
On street cars examining air	6

Milk.

During the past year 2,010 samples of milk collected by the milk inspectors have been examined, an increase of 490 samples over the preceeding year. Of these 153 or 7.6% were below the legal standard which is as follows:

Total solids not less than	12.5%
Butter fat not less than	3.0%
Watery fluid not more than	87.5%
Specific gravity between	1029 and 1.033

A large number of samples have been examined for preservatives, especially formaldehyde, as many agents have been offering for sale to the dealers a preparation of this chemical under the name of "Freezine," a sample of which on analysis was found to contain 5.2% of formaldehyde.

This preservative has been found in eight samples, one of which was traced with the aid of the State Dairy and Food Department to a farmer at Council Corners who was shipping it into the city. As our jurisdiction does not extend beyond the city limits this case was entered at Pontiac by the State and conviction obtained.

The remaining cases brought to trial in the city were all convicted and fines imposed by the court.

The bacteriological examination of milk is considered only so far as it is related to health and disease. The number of bacteria in milk depends on three factors:

(1) The number of bacteria deposited in the milk from the air, udder and utensils.

(2) The length of time which they have had to develop.

(3) The temperature at which the milk has been kept.

This last factor is the most important one and the City Ordinance requiring all milk to be kept at a temperature at or below 50 degrees Fahrenheit until delivered to the consumer aims at keeping down the multiplication of the bacteria.

A number of experiments have been made during the past year in your laboratory to determine the relation of temperature to the development of bacterial growth, the results of which have all coincided. In the case of a sample of very clean milk containing only 5.200 bacteria per cu. c. the results obtained were as follows:

Temperature	24 hours	48 hours	72 hours
58	230.000.	16.000.000.	320.000.000.
65	670.000.	34.000.000.	7.300.000.000.
75	23.000.000.		
85	2.400.000.000.		
95	33.000.000.000.		

Tests of milk obtained on the market and kept at a temperature of 50° F. until sold show a decided improvement as regards bacterial contents over samples obtained from the same dealer last year, when the ordinance was not in force.

As yet we are unable to say just how many bacteria milk must contain to render it harmful to the consumer. Changes in milk which to one child would be harmless may lead to serious disease in another. The safest plan is to allow no more bacterial contamination than can be possibly avoided.

Water.

The chemical analysis of the City water supply is very constant, but little variation occurring from month to month. This is to be expected when we consider its source, a large volume of water which is not subjected to flood or droughts. Particularly was this noticeable last year when there was but little ice which went out of the river and lake without disturbing the bottom. The new intake further insures the constancy of the supply and it is to be regretted that the old intakes, exposed as they are to shore contamination, cannot be altogether dispensed with.

As in the past year we have followed the method adopted by the Michigan Hygienic Laboratory, and known as the Michigan Method, in examining the water for pathogenic organisms. The method in brief consists of enriching a sample of the water with bouillon and incubating for twenty-four hours, a guinea-pig is then inoculated intraperitoneally with a small quantity of this culture. If the water contains pathogenic germs the pig will succumb to them in two to five days when they may be plated out from the blood in pure culture and identified by morphologic and cultural tests.

In addition to the above tests plates are made of 1 c. c. of water in order to determine the number of bacteria per c. c. of water.

The following are the averages of the bacterial counts for each month of the past year:

1905.						1906					
July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
257	267	151	183	133	277	167	195	219	200	176	193

Diphtheria.

Six hundred and fifty-nine cultures from suspected cases of diphtheria were examined this year, 41.5% of which contained the Klebs-Loeffler bacillus.

It is the opinion of all skilled clinicians that when judging by the appearance and symptoms of a case there are many mild cases of exudative inflammation of the throat which are sometimes caused by the Klebs-Loeffler bacillus and at other times by the pyogenic bacteria.

This does not say that a case is one of diphtheria simply because the diphtheria bacillus is present, but rather that the doubtful cases not only have the specific organism in the exudate but are able to give a typical diphtheria to others and that those in whose throats no diphtheria bacilli are present can under no conditions

transmit a true diphtheria to any person, unless they become infected with a new infection.

As a rule it is true that adults evidencing the appearance of ordinary tonsillitis are not suffering from diphtheria but it is also true that every once in a while such a case is due to diphtheritic infection.

On the other hand in children diphtheria frequently simulates an ordinary severe follicular tonsillitis and it is particularly in these cases that a bacteriologic diagnosis is of value, both for the patient and for the prophylaxis of those with whom he may come in contact. The principal reasons for failure to find the Klebs-Loeffler bacillus in cultures from cases of diphtheria are:

(1) The skill of the person making the culture.

(2) The condition of the throat at the time of making the culture.

(3) The condition of the media.

Occasionally cultures come in which have been kept by the physician in his office and which have dried out or become infected by moulds, etc. All culture tubes should be kept in the ice box until inoculated and as soon as possible thereafter placed in the incubator.

The following shows the number of cultures coming in per month and the tubes containing the Klebs-Loeffler bacillus:

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Diph.	10	19	14	29	34	28	30	15	23	23	32	17
No. Diph. ..	6	20	9	17	22	26	63	57	45	50	40	30
Total	16	39	23	46	56	54	93	72	68	73	72	47

Tuberculosis.

The number of sputa examined for the tubercle bacilli this year was 551,43.1% of which contained the specific organism, this is almost double the number sent in to the laboratory last year.

When we consider that tuberculosis is the second highest cause of death, being preceded only by pneumonia, any measure which aids in its detection and tends to assist prophylaxis should be placed freely at the disposal of the public.

In view of the high death rate from this disease and the fact that the sputum is the most frequent carried of the infection the negligence of some people in the care of specimens is noticeable.

Sputum suspected of containing tubercle bacilli should be placed into, not onto, a two ounce wide mouthed bottle, and when a sufficient quantity is obtained for examination the bottle should be closed with a sound cork, not with a wad of paper or a rag tied over the mouth of it, a label with the physicians name and some distinguishing mark on it should be affixed to the outside of the bottle, not immersed in the specimen as has frequently been done. These precautions are due not only to the patient but to the person examining the specimen.

Our experience has been that two preparations of a specimen examined carefully are usually sufficient to demonstrate the presence of the bacilli if they are in the sputum. There are numerous cases of undoubted incipient tuberculosis in which many specimens must be examined before the tubercle bacillus will be found and again cases occur in which the organism is absent for a time though it may have been present earlier and will appear later. The presence of the tubercle bacillus proves about as conclusively as possible the existence of some degree of tuberculosis but the failure to find it does not exclude the existence of the disease.

Venereal Diseases.

A number of examinations for the gonococcus have been made this year, 107 against 26 last year. Many of these have been made on the order of the court.

Widal Reactions.

In response to the offer of last year to make Widal agglutination tests for physicians in doubtful cases of typhoid fever 48 of these tests have been made. The dilution employed is 1-60 and a complete agglutination in 30 minutes is accepted as a positive reaction.

Treponema Pallida.

This organism first observed by Schaudinn and Hoffman in 1905 in cases of primary and secondary syphilis and accepted by most observers as diagnostic of syphilis, has been investigated in your laboratory with a view to using such examinations as an aid to the diagnosis of syphilis. The care necessary in obtaining the specimens and the natural reticence of the patient are somewhat against it, but we will be glad to examine specimens sent in for this organism, provided they are made in a proper and suitable manner. In cases where the patient will come to the laboratory we prefer to make the preparations ourselves.

Respectfully Submitted,
E. H. HAYWARD, F. C. S., M. D.,
Analyst and Bacteriologist.

REPORT OF MEAT INSPECTORS.

July 1st, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—The following is a report of the work done by us during the year ending June 30, 1906:

Inspections of Meat Offered for Sale.

33,839 carcasses beef; 70,709 dressed sheep; 34,511 dressed calves; 16,946 dresed hogs; 633,200 lbs. dressed poultry; 619,800 lbs. fish. Chicago beef houses—30,005 carcasses beef; 25,490 dressed sheep; 9,300 dressed calves; 5,140 dressed hogs.

Inspections of Live Stock.

Cadillac Square and other markets—10,278 crates poultry. Various slaughter houses and Michigan Central Stock Yards—49,095 cattle; 92,100 sheep; 29,465 calves; 170,240 hogs.

Inspections of Markets, Slaughter-Houses and Commission Houses.

Made 3,100 calls at retail markets, 948 calls at slaughter houses, 925 calls at three fish houses and six Chicago beef houses, 700 calls at Eastern and Western Markets and all commission houses located on Woodbridge Street, 20 retail stalls daily at Central Market; also wholesale markets located on Cadillac Square which we visited on an average of three times a week.

Condemned Meats.

RETAIL MARKETS.

Spoiled and unwholesome meats—20,228 lbs.

WHOLESALE MARKETS.

191 dressed sheep, 6300 lbs.
234 dressed calves, 14857 lbs.
6 dressed hogs, 1067 lbs.
Smothered poultry, 3634 lbs.
Dressed poultry, 1828 lbs.
Fish, 2495 lbs.
Beef, 22,240 lbs., consisting of rounds, fronts, loins, and ribs of beef, etc.
Veal, 80 lbs., consisting of saddle veal and side veal.
3 slunk calves.
Pork, 3891 lbs., consisting of pork ribs and pork loins.
Smoked meats, 718 lbs., consisting of hams and bacon.
Finnan haddie, 1291 lbs.
1 bbl. fish, flounders, 200 lbs.
½ bbl. tongue, 100 lbs..
1 bbl. hogs' livers.
5 boxes hogs' brains.
3 bbls. pigs' feet, 600 lbs.
Pigs' head, 30 lbs.
Leaf lard, 300 lbs.
62 pairs rabbits.
34 boxes cheese, 1530 lbs.
10 boxes dates.
12 bags walnuts.

Live stock condemned at Mich. Central Stock Yards:

77 head cattle.
325 sheep.
669 calves.
16 hogs.
1 milch cow.

Slaughter and Packing Houses.

Your inspectors have caused great improvements to be made in this direction during the past year, and there are very few left at present with wood floors, and these will be replaced as fast as worn out with brick or cement floors.

Complaints.

Have been very few. One wholesale butcher was tried and convicted in the Recorder's Court for endeavoring to sell a beef that had died a natural death.

Ordinances Amended.

Ordinances relating to inspecting meats and poultry at interurban stations, conveying meats in vehicles through the city, water-soaked poultry, stockyards, and generally giving your inspectors greater powers, have been amended and are working well, and have been of great assistance to us.

Recommendations.

Your Inspectors would recommend that the Legislature be asked to pass an act authorizing the city of Detroit to erect one or two public abattoirs so that all live stock could be slaughtered at these places, as there are now so many small slaughter houses in the city without proper equipment and refrigerators, and they are increasing in numbers. By doing this there would be more time for your Inspectors to attend to the retail markets.

One of your inspectors spends from Thursday morning early to Friday noon at the M. C. R. R. stock yards every week, inspecting live stock there, and we believe we should have assistance during this time.

We have had every assistance from Dr. L. K. Green and his assistants of the United States Live Stock Bureau when called upon by us to inspect condemned live stock and in all cases your inspectors' decisions were upheld.

Respectfully submitted,

JACOB L. WALTZ,
FRANK KOLB,
Meat Inspectors.

REPORT OF HONORARY MEAT INSPECTOR.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

SIR—I beg leave to submit the following report as honorary meat inspector for the fiscal year ended June 30, 1906:

There has been inspected under my supervision at the time of slaughter 179,194 hogs, 1,001 cattle, 1,031 sheep, and 374 calves,

Of the 179,194 hogs inspected, 442 carcasses and 1,918 parts were condemned for the following causes:

Tuberculosis	346	carcasses
Cholera	39	"
Septicaemia	15	"
Bruised	10	"
Pyaemia	8	"
Pneumonia	7	"
Pleurisy	6	"
Peritonitis	4	"
Icterus	4	"
Enteritis	1	"
Metritis	1	"
Uremia	1	"
Total	442	Carcasses condemned

Parts—

Tuberculosis	1333	parts
Bruised	550	parts
Abscess	34	parts
Actinomycosis	1	part
Total	1918	parts condemned

Of the 1,001 cattle inspected, 1 carcass was condemned for tuberculosis, 2 parts of carcasses for local bruising, and 1 part for abscess.

Of the 1,031 sheep and 374 calves inspected, none were condemned.

Very respectfully,

L. K. GREEN,
Honorary Meat Inspector.

MILK INSPECTORS' REPORT.

July 1, 1906.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR—The Milk Inspectors submit the following report of their work for the year ending June 30, 1906:

Samples milk and cream	2010
Samples from stations and wagons	1590
Samples from stations and wagons, below chemical standard	69
Samples from stores	420
Samples from stores below chemical standard	84
Samples from stores revisited	10
Samples from stores revisited below standard	1
Samples from stores revisited and prosecuted	1
Stores revisited out of milk business	3
Samples formaldehyde	8
Inspections—	
Cattle	642
Stores	599
Dairies and stables	724
Warnings issued to farmers	20
Warnings issued to dairymen	17
Warnings issued to storekeepers	84
Licenses—	
Applications given out personally	1061
Applications received	837
Applications remaining	30
Orders issued	790
Orders refused	19
Complaints received	24
Prosecutions	3
Total samples	2010
Below chemical standard	153

Per cent. below	7.6
Dairies and stations	1540
Below chemical standard	69
Per cent. below	4.3
Stores	420
Below chemical standard	84
Per cent. below	20

Five hundred more samples were taken this year than last. These may be divided between the regular milk dealers and stations and the stores. The regular milk supply has up to this year occupied nearly all of our attention on account of the fact that the amount of milk distributed through the stores is insignificant as compared to the wagons. This year, however, a systematic sampling has been carried on of store milk in every part of the city.

Of the regular milk supply 4.3% of the samples taken were below the chemical standard which is a slight reduction from last year. Of the 420 samples taken from stores, 20% were below the standard. Of the total number of 7.6% were below.

These figures do not mean, however, that of all milk sold in Detroit, from wagons, one quart in every twenty-five, and from stores, one quart in every five is below the chemical standard. Milk that is known to consistently run not only up to the required standard but 50 or 60% over it is very rarely sampled. This applies equally to stations, wagons and stores. The supply, however, that uniformly runs close to 3% is given much more than its share of attention, samples being repeatedly taken from these dealers, hence our percentages do not give as just ratio of the entire supply. A better idea of the true condition may be obtained from the fact that the State Inspectors came to Detroit last summer and took 90 samples indiscriminately of which all but one were above the standard.

The increased number of samples taken is largely explained by the extra work done at the receiving stations. As it would be impossible for dealers to sell milk over 3% in fat when they received it at a less percentage, the work of shutting out farmers

who send in a thin product has been given more attention than ever before. This has been greatly facilitated by the co-operation of the larger dealers who have dropped as many as a dozen farmers in a day at our suggestion.

The practice of notifying storekeepers of their faulty supply and warning them to correct it has been productive of very good results as far as we have gone in re-covering the places thus warned. Quite a number give up the milk business on receiving such a notice. In only one of the others were we able to get a case for prosecution. This practice has also stopped the habit of milkmen of passing off their old or questionable milk on stores. The brand known to dealers as "store milk" has gone out of existence, and the bulk milk of stores is giving way to bottles, a majority of the dealers warned having adopted this system which insures the store supply being equal, chemically to that of the wagons. This system of issuing warnings is, we believe, of greater value in improving Detroit's milk supply than wholesale arrests would be. It certainly improves the grade of milk and relieves the necessity for the arrest of many people guilty only of a technical misdemeanor. As soon as possible we expect to re-sample all stores warned, and in all cases where the milk falls below 3% prosecutions will follow.

The prosecutions this year for a number of reasons have been fewer than formerly. The first was traced, after the case had been prepared against a Detroit dealer, to his farmer at Birmingham. The evidence in this case (formaldehyde) was turned over to the State Inspectors who prosecuted in Pontiac and secured a conviction. The second case was against a storekeeper who had been warned and then re-visited. His testimony was a misrepresentation of facts and secured for him an acquittal. The third case (formaldehyde) was against a city dealer against whom such strong evidence was brought that he pleaded guilty.

In view of the very low percentage of samples which ran below the chemical standard, probably the most important part of

our work this year has been the inspection of dairies and methods of handling. As a year ago we explained in detail our troubles in this work before the passage of the new milk ordinance, it will not be necessary to go any further into that at this time. We can, however, give a more detailed report of its first year's operation for so many cases extended over into this fiscal year that it was impossible to report their final disposition in our last annual report. We now, however, call your attention to the following table:

	Applications Rec'd	Refused Once	Refused Twice	Refused Finally	Acted on Favorably	Remaining
Year ending June 30, 1905....	368	119	41	23	244	5
" " " 1906....	839	19	..	..	790	30

Last year those dealers whose premises did not comply with the provisions of the ordinance were told what would be required to secure one. On a second inspection most of them had followed directions and an order was issued. Those who had not were given a short time to complete changes which many did. Twenty-three preferred to go out of the milk business and did so.

This year a great difference may be noticed. Those dealers who complied with the provisions of the ordinance last year have usually kept their premises in good condition. In fact they exhibit a pride in the improvements which they take pleasure in showing to the inspectors. Many intend to institute still further improvements voluntarily. The refusals this year consist mainly of new dealers, all of whom will probably be issued a permit at the next inspection. There are also a few who failed to keep their premises in good condition last year after securing a license. These we propose shutting out entirely. The improvement in Detroit's dairies has never before compared with that of this year.

During the past year the condition and method of handling milk in Detroit stores has been systematically inspected. In order that none might be overlooked the inspectors adopted the system of walking up one street and down the next, stopping at every

store. This was necessarily a slow process and required a great deal of time. We now have, however, a record of the condition of every store handling milk in Detroit. The facilities for handling milk in the stores offer very little to criticize, all being provided with good ice boxes. In the method of handling, however, some corrections have been made. These have been necessitated by a disposition on the part of some dealers to let the milk can sit around the store uncovered until the morning's trade is over, and to dip the milk with a pint measure or tea-cup. Such persons have agreed to keep the milk in the ice box at all times and to provide a dipper that the milk may be well stirred from the bottom. We have been generally well received by the store-keepers, a majority voluntarily expressing themselves as heartily in favor of rigid milk inspction. In a few cases we have met with opposition which has always been overcome without the necssity of a prosecution for obstructing. Store milk will undoubtedly be better after this sweeping inspection but will never be as good as that retailed by the regular dealers. It is certain to be older and cannot be improved by passing through another pair of hands.

We regret to report that formaldehyde has again made its appearance in some of Detroit's milk. We have reason to believe that only four dealers have used it. Two of these have been convicted and fined. We have not been able to find it in the supply of the other two but have found it in the milk of stores supplied by them. We expect to fasten the responsibility on the guilty parties within a few days. This outbreak of formaldehyde is due to the presence on the market of a new preservative called "Freezine" which dealers are assured by its salesmen is harmless and cannot be detected. It is a preparation of formaldehyde.

Your special order made it part of the ordinance that milk be kept at a temperature of 50° F. is being enforced in the city by requiring all dealers of milk to provide ice boxes. Nearly all wagons are provided with ice vats and no store selling milk is without a suitable ice box. With this equipment and reasonable

care milk will keep as long as necessary without the addition of preservatives. Why it is then, that dealers are tempted to take such risks for the sake of using them, we do not know, for as soon as one is summoned to court, especially on a formaldehyde complaint all his competitors herald the fact to as many of his customers as they can reach. As the people are very sensitive regarding their milk supply this always results in a great business loss in addition to the expense of a defense and fine. Probably a few dealers will always be found willing to take this risk rather than exercise a little more care in icing and handling.

A few new milk and cream "improvers" have been discovered but as they have fallen into the hands of the inspectors before the milk dealers received them and as warnings have been issued against their use, none have been found added to milk or cream.

Under your direction and supervision we have this year installed an improved card filing system which will reduce the bookkeeping of your Milk Inspection Department to a business basis. Already a report is entered on these cards of every person in the milk business in Detroit. A similar system will henceforth be kept of all complaints and their disposition.

Fewer complaints have been received by this department than ever before. This can only be regarded as an expression by the people of a greater satisfaction with their milk supply, as all complaints have been given prompt attention and the names of persons making complaints have never been revealed. As soon as a complaint is received it is carefully investigated by the inspectors without the necessity of citizens being brought into the case or given annoyance in any way. This should encourage requests for investigation whenever there is dissatisfaction. Of the complaints received only two were well founded, one leading to a formaldehyde conviction. A number, however, were made with reference to contagious disease appearing on a certain milk dealer's route. Although followed clear to the farmers nothing was ever found to associate the disease with the milk.

Several trips have been made into the new Eighteenth Ward to ascertain the condition of the milk industry there. As houses in this vast territory are not numbered nor the streets marked, progress was very slow. The indications are, however, that conditions there are about the same as prevailed in the Sixteenth Ward five years ago.

Respectfully submitted,

G. H. PALMERLEE,
W. H. PRICE.

REPORT OF GARBAGE INSPECTOR.

Guy L. Kiefer, M. D., Health Officer:

Dear Sir—The following is respectfully submitted as my report for the fiscal year ending June 30, 1906:

The work of my department has increased instead of diminished during the year in spite of the efforts made by the Board of Health to better the sanitary condition of our city.

The garbage problem is a hard one to solve. The company having the contract for the collection and disposal of garbage has not collected as frequently as their agreement required them to do, the result being a good deal of dissatisfaction and a large number of complaints on the part of our citizens. The contract should have been more strictly enforced by the Common Council.

On July 1st the collecting of garbage will be undertaken by the Commissioner of Public Works, and I hope under the new arrangement that the collecting will be regular and satisfactory to all concerned, but my past experience teaches me that neither the Commissioner of Public Works nor a private person or corporation can ever successfully perform this work without the co-operation of the people, and the aid of the Police Department in enforcing the ordinance requiring a proper receptacle for garbage to be placed in an accessible place, and that nothing but garbage be placed in such receptacles. I find that many people are in the habit of throwing their garbage and other rubbish in the alleys, which in warm weather soon creates a nuisance. The names of these offenders should be secured, complaints made against them and proper punishment administered.

I would suggest that the city make provision for the collection, not only of garbage, but also of cinders, ashes and other rubbish, so that we may have clean and sanitary alleys, the recent repaving of many alleys with vitrified brick on a concrete foundation making this possible. This system is in use in a number of other cities and I understand gives good satisfaction.

I hope that when the new system goes into effect on July 1st, by which garbage collection is to be undertaken by the Commissioner of Public Works, that it will result in so great an improvement as to be entirely satisfactory to the public, the Board of Health and the Common Council.

The following table states the amount of work performed by me for the period mentioned:

	Complaints Investigated	Places Investigated	Not the Fault of the Company	Fault of the Company	Special Investigations
July, 1905	388	388	59	313	16
August	634	....	133	501	..
September	445	445	65	476	6
October	562	562	99	451	12
November	201	210	32	162	11
December	123	123	18	100	5
January, 1906	220	220	33	168	29
February	141	141	18	110	13
March	197	197	35	160	2
April	179	179	29	147	8
May	141	141	39	102	0
June	272	272	53	219	0
July	572	572	57	519	6
Total	4,075	3,450	670	3,428	108

Respectfully submitted,

JOHN B. PETERS,

Garbage Inspector.

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